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The Role of the Clinical Technician within a Simulated Practice

### **Original Citation**

Clayton, Tracy (2011) The Role of the Clinical Technician within a Simulated Practice. In: Human Patient Simulation Network (HPSN) Annual Conference 2011, 22nd - 24th February 2011, Tampa, Florida, USA. (Unpublished)

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*University of*  
**HUDDERSFIELD**

## **The Role of the Clinical Skills Technician**

By Tracy Clayton

# University = June 2007

- Clinical Technician
- Part Time

- Technicians
  - 1 Full Time = Senior Clinical Technician
  - 1 Part Time = Clinical Technician

# Skills Laboratory's

## Nursing Ward



## Simulation Suite





## Operating Theatre



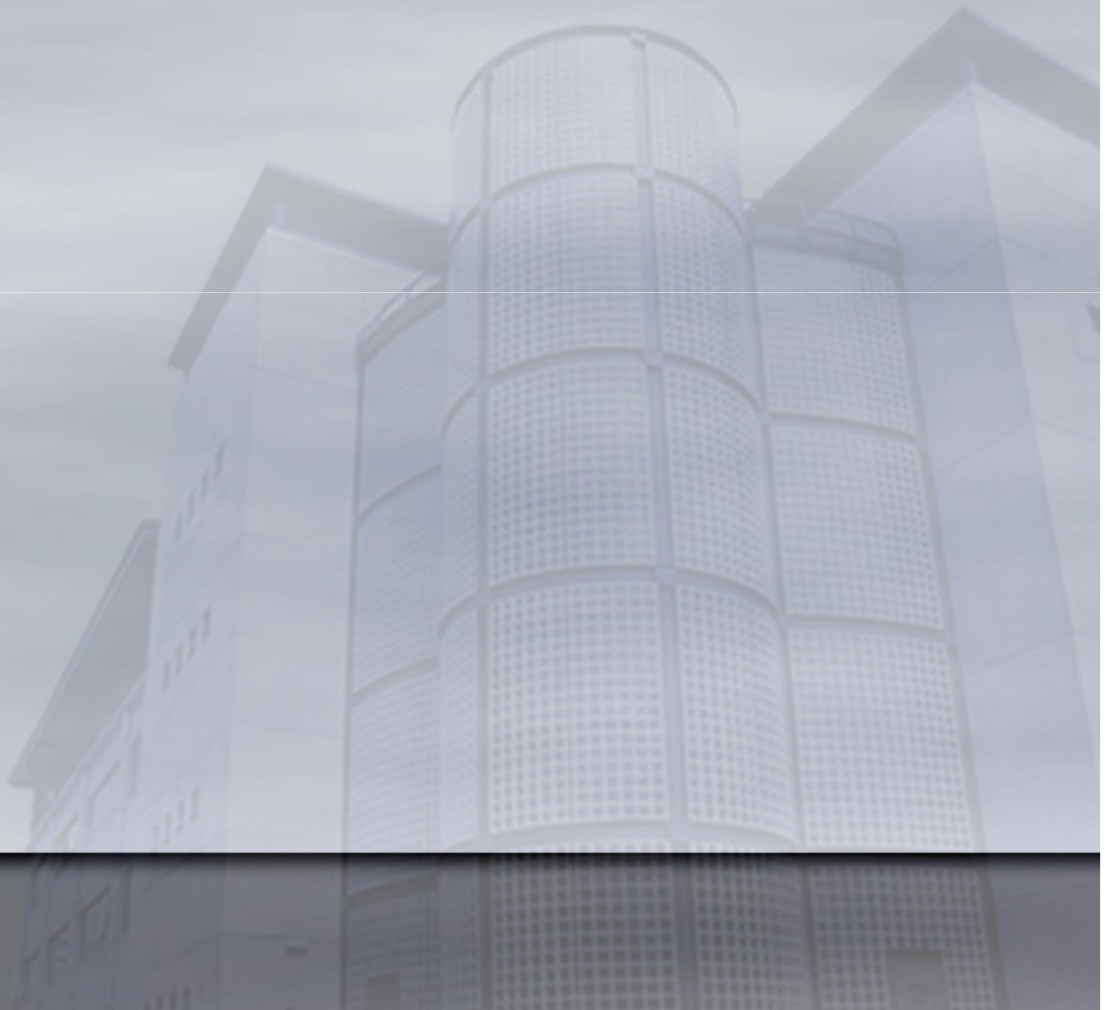
## Occupational Therapy



## Neptune Ward (Child Nursing)



- iStan = September 2008





# iStan = September 2008

- Need for Technical Support
  - New Job Role Generated
  - Demonstrator for iStan
- 
- 2 Full Time = Senior Clinical Technician
  - 1 Full Time = Clinical Technician

# Overview of Job Role

- Maintain
- Preparation
- Correct Running
- Voice (Unless Male)
- Designing New Scenarios
- Collaboration With Staff
  - » Correct Curriculum

- Nursing and Midwifery Council (NMC)
- Allow 300 Hours for Simulation Practices

- Road Traffic Accident
- Airway (A)
- Breathing (B)
- Circulation (C)
- Disability (D)
- Exposure (E)





# Road Traffic Accident

iStan (1) @ localhost

00:03:49 Patient Time

Save Stop Logs Detach Tab Recorder Disconnect Connections

HR 94	MAP 99	C.O. 6.6
SpO2 97	Hct 42.30	Isch. Idx. 5.55
ABP 129/74	PAP 21/9	CVP 7
CS-X 12.85	ICP 8	CS-Y 55.57
Left Vol. 1234	Right Vol. 1234	Spont.VT 748
PACO2 30.6	PAO2 139.7	Spont.RR 18
Alv. N2O 0.0	Alv. Iso. 0.0	Alv. Sevo. 0.0
Alv. Halo. 0.0		Alv. Ent. 0.0
PaCO2 33.7	pH 7.49	PaO2 79.3
PvCO2 42.1		PvO2 37.5
TBody 36.0	Weight 100.0	TBlood 36.5

Simulation Scenario Condition Drugs Fluids Cardiovascular Respiratory

Show: Player

Scenario RTC RTA Abdominal Injury.hs6

- ▶ Initial Assessment
  - ▶ Hypovolaemic Shock
  - ▶ ICU Postoperative 4 Hours Later
  - ▶ Surgical Ward 72 Hours Later
  - ▶ -----
  - ▶ Voice Command-Pain Scale-"7"
  - ▶ Voice Command-Pain Scale-"4"
  - ▶ Voice Command-Pain Scale-"2"

Current State: Initial Assessment State time: 00:03:11

Go to Next

# Stop Breathing

iStan (1) @ localhost

00:07:48

Save Stop Logs Detach Tab Recorder Patient Time Disconnect Connections

Simulation Scenario Condition Drugs Fluids **Cardiovascular** Respiratory

Show: Heart

Parameters

HR	MAP	C.O.
162	20	2.0
SpO2	Hct	Isch. Idx.
97	42.30	3.16
ABP	PAP	CVP
19/19	19/19	19
CS-X	ICP	CS-Y
12.85	8	55.57
Left Vol.	Right Vol.	Spont.VT
1150	1150	0
PACO2	PAO2	Spont.RR
38.9	116.2	18
Alv. N2O	Alv. Iso.	Alv. Sevo.
0.0	0.0	0.0
Alv. Halo.		Alv. Ent.
0.0		0.0
PaCO2	pH	PaO2
33.2	7.49	76.4
PvCO2		PvO2
39.4		36.1
TBody	Weight	TBlood
36.0	100.0	36.5

Cardiac Rhythm Override

PEA

PEA  
Normal Junctional  
Normal Junctional (50)  
Paroxysmal Junctional Tachycardia  
Paroxysmal Junctional Tachycardia (130)  
Left Bundle Branch Block

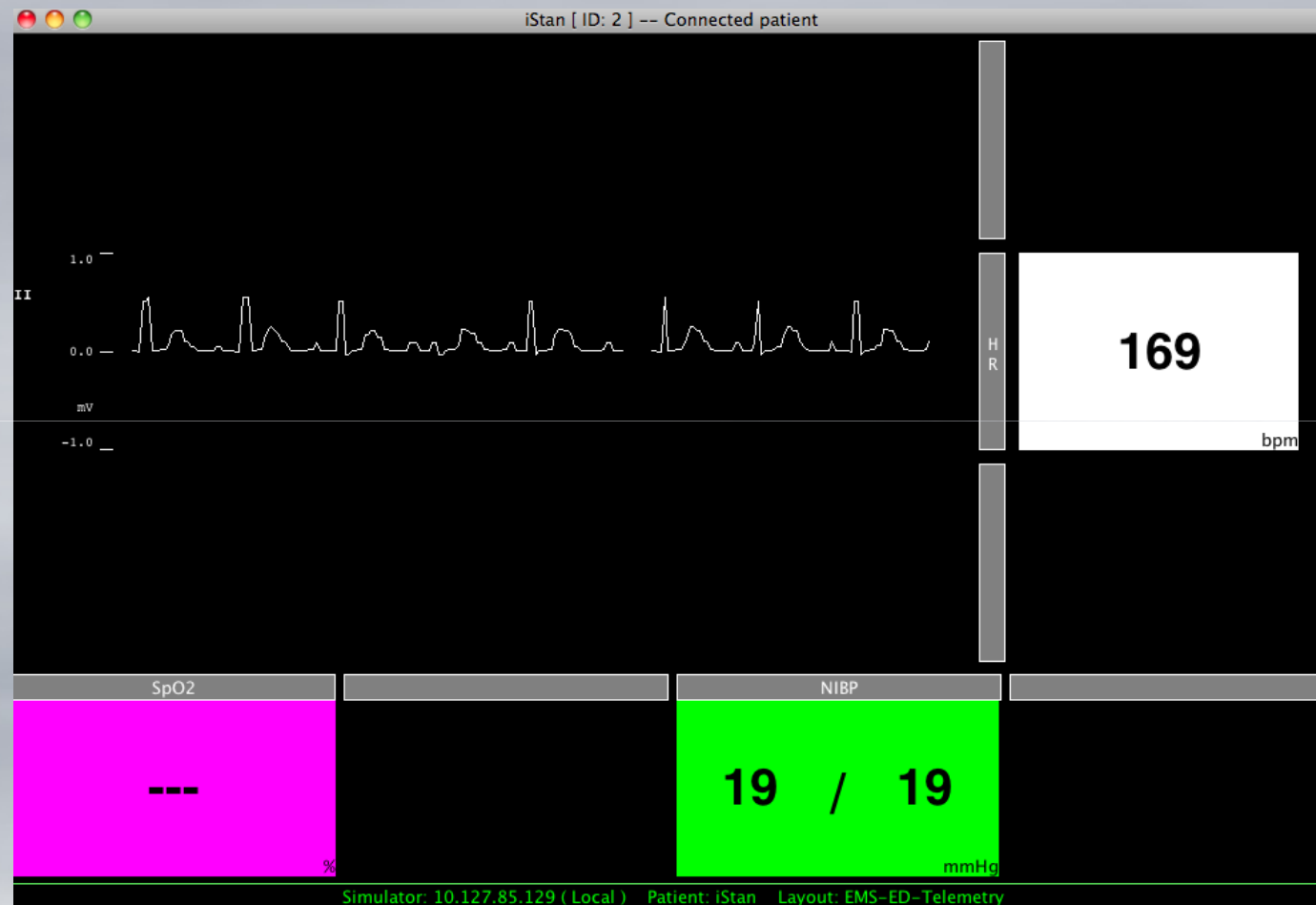
Select

Description

Cardiac Rhythm Override

Value: Default None (Model-Driven) (iStan)  
Default None (Model-Driven) (iTruck Driver)  
Default None (Model-Driven) (iStannette)  
Default Right Bundle Branch Block (iGranny)  
Default None (Model-Driven) (iSoldier)  
Sine

# Non Shockable Rhythm



# Learning Outcomes

- Observation of A, B, C, D and E
- Understanding & Administration of
  - » Oxygen
  - » Medication
  - » Fluids
- Sense of Real CPR



- Develop the role of the simulation technician
- Open it up to students
- OCSE'S
- More Disciplines
- Practice Gap

# Practice Gap

- Laura & Stan



# Skills Learnt Through Simulation

- Communication
- Confidence
- Involvement
- Problem Solving
- Creative – Scenarios
- Curriculum
- Understanding

- Programmed 9 scenarios
- 7 Adult Nursing, various illnesses
- 2 Mental Health, schizophrenia patient presenting diabetes's
- 1 Self Harming Scenario (in progress)



- Simulating Self Harming Techniques



# Practicing on iStan



# Flat Lining iStan

- Can you flat line iStan?
- How do you flat line iStan?
- Physiological effects
  - » Eyes close
  - » Stops breathing
  - » No palatable pulses

# Flat Lining iStan

iStan (2) @ localhost

00:13:14 Patient Time

Save Stop Logs Detach Tab Recorder Disconnect Connections

Simulation Scenario Condition Drugs Fluids **Cardiovascular** Respiratory

Show: Heart

Parameters

Baroreceptor Gain (Cardiac) Factor  
Cardiac Rhythm Override  
Contractility Factor: Left Ventricle  
Contractility Factor: Right Ventricle  
Fixed Heart Rate  
Heart Rate Factor  
Ischemic Index Averaging  
Ischemic Index Sensitivity  
Pericardial Fluid (Acute)  
Resistance Factor: Aortic Valve  
Resistance Factor: Mitral Valve

Cardiac Rhythm Override

None (Model-Driven)

Mobitz Type II  
Myocardial Ischemia (mild)  
Myocardial Ischemia (moderate)  
Myocardial Ischemia (severe)  
Myocardial Ischemia (moderate) PVCs  
**Asystole**  
ST Segment Elevation (With Chest Pain)

Select

Description

**Cardiac Rhythm Override**

Value: Default None (Model-Driven) (iStan)  
Default None (Model-Driven) (iTruck Driver)  
Default None (Model-Driven) (iStannette)  
Default Right Bundle Branch Block (iGranny)  
Default None (Model-Driven) (iSoldier)  
Sinus

HR	MAP	C.O.
95	100	6.7
SpO2	Hct	Isch. Idx.
97	42.30	5.60
ABP	PAP	CVP
130/76	23/13	3
CS-X	ICP	CS-Y
12.93	7	57.14
Left Vol.	Right Vol.	Spont.VT
1484	1484	707
PACO2	PAO2	Spont.RR
29.7	136.3	17
Alv. N2O	Alv. Iso.	Alv. Sevo.
0.0	0.0	0.0
Alv. Halo.		Alv. Enf.
0.0		0.0
PaCO2	pH	PaO2
32.0	7.50	77.2
PvCO2		PvO2
39.1		36.6
TBody	Weight	TBlood
36.0	100.0	36.5





# Injuries



# Deep Laceration



# 100 Years of Evolution

## Mrs Chase 1911

- 1/ Adult Sized Soft Doll, designed on Mrs Chase body size and looks
- 2/ Sewn Elbow's & Knees
- 3/ No Breathing, Blinking, Pulse's etc
- 4/ No Software.

## iStan 2011



[http://www.nsna.org/Portals/0/Skins/NSNA/pdf/Imprint\\_FebMar08\\_Feat\\_MrsChase.pdf](http://www.nsna.org/Portals/0/Skins/NSNA/pdf/Imprint_FebMar08_Feat_MrsChase.pdf)



# Thank You For Listening

Any Questions?



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- Special thank you to all those involved.